

AR53



AT&T's Business

AT&T's business is information movement and management: providing quality products, systems and services to a diversity of markets in the United States and, increasingly, to nations around the globe.

Consumers AT&T provides consumers long distance services and high-quality telephones and related products.

Business and Government For large and small businesses and federal and state governments, AT&T offers a range of voice and data transmission services and sophisticated communications and data products and systems. Increasingly this involves developing customized data networking solutions that connect incompatible and widely dispersed computer systems into integrated networks.

Telecommunications Industry AT&T supplies switching systems, transmission equipment and operations support services to the telecommunications industry.

Electronic Components AT&T designs and manufactures advanced electronic components for its own use and for sale to other high-technology firms.

About Our Cover

The action never stops at the control center for the AT&T Worldwide Intelligent Network. From their vantage point in Bedminster, New Jersey, network managers monitor and channel the movement of voice, data and visual images on 1.3 billion miles of communications circuits around the world.

1987 Financial Highlights

Dollars in millions (except per share amounts)	1987	1986
For the Year:		
Total Operating Revenues	\$33,598	\$34,087
Net Income	2,044	139*
Return on Average Common Equity	14.4%	.3%*
Per Common Share:		
Earnings	\$ 1.88	\$.05*
Dividends Declared	1.20	1.20
Book Value at Year-End	13.46	12.64
Market Value at Year-End	27.00	25.00

*Results for 1986 were significantly affected by major charges for business restructuring, an accounting change, and other actions that reduced net income by \$1.7 billion. See Note B, page 30.

Nineteen eighty-seven was a breakthrough year for AT&T—a year of record earnings, meaningful cost reduction and vigorous demand for AT&T stock. We didn't solve all our problems, but there was undeniable progress toward our long-range goals. In the following interview, Robert E. Allen, president and chief operating officer, and I review 1987's progress and look ahead to the opportunities of 1988.



JAMES E. OLSON, Chairman
February 8, 1988

How would you characterize AT&T's financial performance in 1987?

OLSON: It was an excellent year financially, our best since divestiture. The big story was our success in reducing costs and improving product and service margins. This paved the way to earnings per share of \$1.88. This is a 62 cent improvement over what we would have earned from operations in 1986 before the special charges against earnings. AT&T's 1987 earnings were better than anyone expected at the beginning of the year and are evidence that our marketing and sales efforts are beginning to pay off.

With October's crash, 1987 was a tough year on the stock market. What does the performance of AT&T stock tell you?

OLSON: The demand for AT&T shares before and after the market crash was a clear vote of confidence in AT&T. Growth in the market value of our stock outpaced the Dow Jones Industrial Average for the year. We hit a post-divestiture high of 35 $\frac{7}{8}$ in the third quarter. Naturally, the October crash pulled every company's stock price down. But AT&T did not fall as far or as hard as the market averages after the crash.

Do AT&T's 1987 results mean that the company's costs are now competitive with those of other companies, especially from outside the United States?

ALLEN: In many areas of the company our cost structure is excellent and competitive with anyone. AT&T's total costs went down by over a billion dollars in 1987. That was a real accomplishment. Now we are building on that accomplishment by implementing more efficient support systems for our sales people and driving for quality in everything we do. Gaining and maintaining a competitive cost advantage is a never-ending effort.

What is AT&T's greatest source of strength as you go into 1988?

OLSON: The quality of our people, without a doubt. They have stood by us before and after divestiture. It was their collective efforts that gave us the success we had in 1987, and the company is putting great emphasis on meeting the needs of its employees.

What was AT&T's biggest challenge in 1987—and for 1988 and beyond?

OLSON: Our biggest challenge in 1987 was improving our operating performance, and we certainly did that. The proof is in our earnings and return on equity. As for 1988, our challenge is increasing total revenues, especially in product sales in the United States and abroad.

What's being done to increase product sales, and what kind of progress has AT&T made?

ALLEN: Product sales got off to a slow start in the first half of 1987 as we rebuilt our sales forces, but these sales picked up momentum in the second half. We introduced very successful new products in both our computer and PBX lines, and we're emphasizing the need to get new products into the marketplace faster across the board. The demand is there, and we had to expand some manufacturing schedules to satisfy customer orders. Sales to the regional telephone companies and overseas telecommunications agencies were a big contributor to revenues all year, and our consumer products business continued to lead an extremely competitive market. We completed extensive sales and technical training for our sales and services people. I'm optimistic that the upswing in product sales will continue.

What are the prospects for earnings growth in 1988?

OLSON: In the absence of severe problems in the United States or the world economy, AT&T should continue to improve its earnings and its return on equity. That's certainly our plan.

How does it look for an increase in the dividend?

OLSON: That's a question that would have to be answered by the board of directors. The more we improve our earnings, the more flexibility we have on dividends. Right now our dividend payout ratio is too high. That means we're paying out too high a percentage of our earnings in the form of dividends. But our objective is to correct that situation by producing higher earnings.

The press and the financial community seem impressed with AT&T's performance in the long distance business. How do you see it?

ALLEN: It is a growing, profitable business. We faced the compounded financial pressures of price cuts and competition and still had a successful year. Where the long distance carrier selection process was conducted in 1987, AT&T was still chosen by better than three out of every four customers. Our long distance business grew moderately with an increase of about eight percent in calling volume. There was stronger growth in international services provided over the AT&T Worldwide Intelligent Network.

The FCC is considering replacing rate of return regulation of AT&T's interstate long distance business with a cap or limit on your prices. What effect would a change like that have?

ALLEN: We're encouraged that the FCC is considering a price cap form of regulation because rate of return limitation isn't relevant in today's highly competitive long distance market. But the form of that price cap is critical. If properly done, it would encourage continued investment by AT&T in its network. This would enable us to provide innovative services and give us the flexibility to hold down long distance prices.

What is the company's strategy for achieving stronger financial results?

OLSON: Broadly, it's the three-pronged strategy we announced in last year's annual report—strengthen our core businesses, become a leader in data networking and expand our international business. While we will continue to wring costs from our business, as Bob said, long-term revenue growth will receive much greater emphasis.

What's the importance of strengthening core businesses in comparison to the other two strategic priorities?

OLSON: The core businesses of long distance service, communications equipment for business and consumers and telecommunications network equipment are critical to our success in data networking and the international arena. I can't overstate the importance of retaining our leadership in these core businesses.

Could you explain what data networking is and how AT&T is doing in this new field?

OLSON: Data networking comes down to giving our customers integrated systems that get them the right information when they need it, wherever

they need it, in whatever form they need it. In designing those systems, the key word is connectivity. We recognize that businesses today have a substantial investment in both communications and data processing equipment. Our approach is to protect that investment by designing systems that connect with equipment from other suppliers as well as our own—systems that link all the information sources a modern company needs. We sold major data networking systems to corporate and government customers in 1987, and our data networking strategy seems right on target.

How does AT&T Network Systems, the unit responsible for manufacturing and marketing telecommunications network equipment, fit into your strategy?

ALLEN: Network Systems is one of the strongest areas of our business and its people contribute to all three segments of our strategy. Besides being one of our core businesses, their work with ISDN (Integrated Services Digital Network) technology is critically important to our data networking strategy. Network Systems products lead AT&T's national product sales revenues.



How are you doing with the international element of your strategy?

ALLEN: In terms of providing international network services, we're doing very well and improving each year. We are far from where we want to be in global markets, especially on the equipment side. But we've made progress.

OLSON: We are committed to succeeding in the global marketplace. We don't see it as an option. Our customers are global, and our strategic competitors are global.

How would you characterize the contributions of AT&T Bell Laboratories during 1987?

ALLEN: Bell Labs continues to give AT&T a technological edge that is an invaluable competitive advantage. There is always so much going on at the Labs in product development and basic research, it's difficult to single out one area. The company benefited significantly from Bell Labs' concentration on getting a product or service from the design stage into the marketplace in the quickest and most cost-effective way. The Laboratories are also at the heart of our company-wide emphasis on quality, not just in our products and services, but in the processes we use to deliver them.

In reviewing the ruling that broke up the Bell System, Judge Harold Greene in 1987 retained restrictions that prohibit the divested companies from getting into the interstate long distance business and telephone equipment manufacturing. Did you agree with that decision?

OLSON: Yes. There have been no changes since divestiture that justify removing those restrictions. His decision ensures that America continues to enjoy the range of choices that flows from vigorous competition in the long distance and telephone equipment markets. The judge did give significant relief by easing a restriction that kept the divested companies from offering information services. We supported this action as a step toward stimulating these useful new services.

Finally, in last year's annual report, Mr. Olson, you characterized AT&T as traveling down the right road, but in the wrong lane. In view of 1987, how would you update that description?

OLSON: We're still traveling down the right road but now we're also in the right lane—the fast lane. You can't stand still in that lane, and we aren't. We're moving right along. ■

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(from left in picture below)

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LONG DISTANCE SERVICE

A Worldwide Intelligent Network

Shortly after 11 on a busy weekday morning in September, a steam shovel operator in New Jersey severed one of AT&T's fiber optic cables, instantly disconnecting 36,000 calls along the

busy Philadelphia-New York route. But thousands of other calls were rescued before they reached the trouble spot—bounced across the continent from Philadelphia to Portland, Oregon and back east again like a side-cushion billiards shot.

The customers who make more than 75 million calls on the AT&T Worldwide Intelligent Network during a typical business day never have to think about how their calls get through. That's a job for the people of

AT&T, who handled record calling volumes in 1987 with record efficiency.

To help them do that job right, AT&T invested \$2.7 billion in 1987 to improve its network, and expects to invest another \$6 billion during 1988 and 1989.

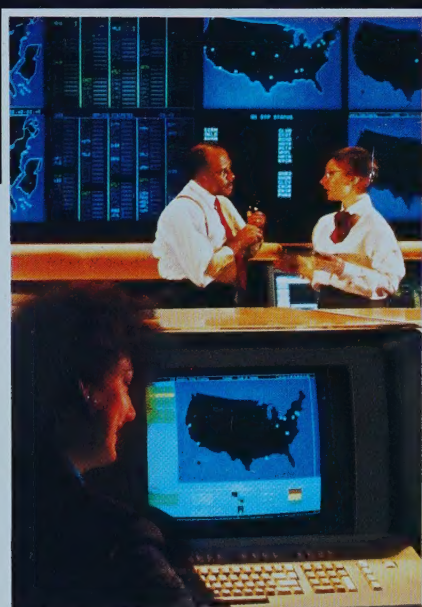
The AT&T network has been called the central nervous system of world communications, and it is. But it is also the heart of one of AT&T's

most successful businesses—long distance calling.

AT&T remains the undisputed champion in the competitive markets for business and consumer long distance services. Calling volumes increased in 1987 as AT&T's prices came down almost 16 percent, reflecting reductions in connection fees AT&T paid to local telephone companies and AT&T's increased productivity.

International calling remained the fastest growing part of AT&T's long distance business. The company handled an average of over 2.6 million international calls each day.

An undersea fiber optic cable now being installed between the United States and Europe will be the Atlantic leg of the AT&T network. By the end of 1989, AT&T and its international partners will install a fiber optic cable across the Pacific. This will mean that AT&T can offer its customers a fiber optic chain linking the major markets of Japan, the United States and Europe.



The first fiber optic transatlantic cable, owned by AT&T and communications companies on both sides of the Atlantic, is scheduled for service in 1988. An AT&T team aboard the cable ship John Cabot was up at dawn for part of the undersea installation work. (Inset) At the control center for the AT&T network, managers like Ginger Simpson (foreground), Oscar Dillard and Allyson Toth keep international and domestic communications flowing 24 hours a day.

Voice calls still make up the majority of traffic on the network, but the demand for digital services is expected to keep growing at the rate of 15 to 20 percent a year.

To stay ahead of that demand AT&T had converted 98 percent of its switching facilities to digital systems by the end of 1987. The company's domestic digital transmission network, already the largest in the world with 45,000 route miles, is being rapidly expanded and will reach 67,000 miles by 1990. At that time, over half these digital lines will use fiber optic cable. Worldwide, AT&T's digital network will grow to 88,000 miles by 1991.

This digital expansion supports AT&T's rapidly evolving Worldwide Intelligent Network, and gives major business customers more opportunity to fill their own data networking needs with customized services designed to help them move and manage information in the form of data, voice

or video images. Users will eventually move information back and forth across oceans and continents as easily as they now move it from state to state.

AT&T is also investing more of its technology in protecting customers from service disruptions. In 1988, the company will begin installing "restoration switches" to help reroute digital business services when normal channels are blocked by emergencies.

Network improvements completed in 1987 included a new computerized dynamic routing system for monitoring and directing traffic around AT&T's 1.3 billion miles of circuits. It uses AT&T's own 3B20 minicomputers and the AT&T 5ESS® digital switching system. Seven days a week, 24 hours a day, this system constantly checks traffic at every junction along the network.

Timely applications of new technology like this exemplify AT&T's conviction that you can't remain the world leader by standing still. ■

The Customer Connection

Glenn McKittrick knows he's had a good day when he leaves his office at the First National Bank of Chicago feeling he's helped "First Chicago" improve its profitability. But then, that's what he gets paid to do—paid by AT&T. McKittrick is one of 370 national account managers in AT&T's Business

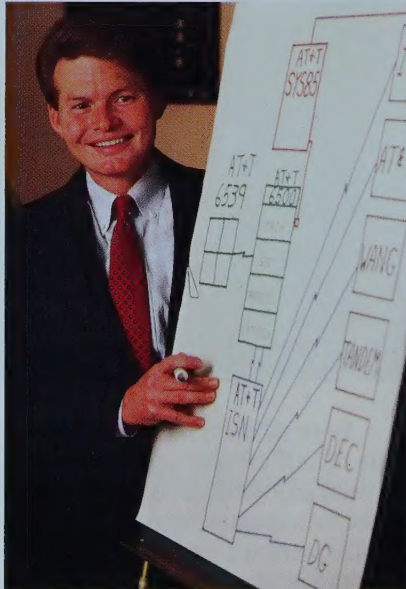
Markets Group. Each one heads a sales and service team devoted to a single large customer. From computer networks to massive communications systems and business services delivered through the AT&T Worldwide Intelligent Network, these account teams tailor AT&T's information movement and management capabilities to the specific needs of their customer companies.

This is where AT&T applies its most advanced data networking and systems integration technology and demonstrates its nationwide delivery and servicing capabilities.

First Chicago is a prime example. Data processing operations in the bank's 11 buildings in downtown Chicago are linked by an AT&T local area network, which is an electronic system that allows computers in different locations to work together. Voice and data traffic is handled by AT&T's System 85 and System 75 digital PBXs (call switching systems used within a company), with a direct link to the bank's New York offices.

"We see the services that we get from AT&T as lifeline links to our customers," explained Don Hollis, executive vice president of First Chicago.

Just last year, First Chicago and AT&T started a pilot systems integration project that lets employees access four of the bank's computer data bases simultaneously, even though each is



(Above) Glenn McKittrick, a national account manager for AT&T, describes a data networking system developed for a corporate customer. **(Opposite)** AT&T personal computers are delivered at Bradley University where a campus-wide information network connects personal computers in dormitory rooms with campus data bases, faculty members and the school's computerized library files.

part of a system from a different computer company, including one from AT&T.

AT&T's data networking strategy is based on the idea that no customer should be held prisoner by one supplier's computer or communications

equipment because of proprietary, incompatible technology. This conviction translates into a concept called "open architecture," which means designing AT&T's products for maximum connectivity with each other and with systems produced by other companies.

Most large companies today have multimillion-dollar investments in data processing equipment. To protect those investments, AT&T is taking the lead in the integration of its technology with technology from other sources. Without that kind of integration, true data networking cannot take place.

The customers in AT&T's national accounts category include some of the biggest in corporate America. Yet AT&T's biggest single customer is not a corporation, but the federal government.

Sales and service for a wide range of United States government agencies are coordinated by AT&T Federal Systems. AT&T's business with the federal government also involves high-tech communications support for America's armed forces. In the San Francisco area, AT&T began work on a \$92 million U.S. Navy contract to connect 14 major naval bases with a single sophisticated information system that uses fiber optic cable and microwave connections supported by AT&T's state-of-the-art System 85



digital PBX and AT&T 3B computers. In 1987, AT&T also provided the Navy with the first production units of a new supercomputer—the Enhanced Modular Signal Processor. This new generation of AT&T signal processors offers 10 times the computational power of the previous generation and will serve as the Navy standard for the next decade.

Filling the complex needs of major customers demands a strategic partnership between AT&T and the customer.

More and more, AT&T is helping its strategic partner customers move and manage information internationally. For the last three years, the AT&T account team assigned to the Goodyear Tire & Rubber Company has worked with Goodyear to develop a global corporate network that now carries voice and data among Goodyear locations in America, Europe, Australia and South America.

The strategic partner approach also led to a \$300 million contract with General Electric in 1987. AT&T will design, build and maintain a telecommunications network linking 700 GE locations.

As part of AT&T's global information movement and management strategy, the company is working to provide multinational companies with end-to-end service and products. Ultimately, this will mean global data networking using Integrated Digital Services Network (ISDN), a digital technology that can provide voice, data and video images over the same facilities.

As a first step, AT&T created a concept called Global Account Management Plus that is now being tested with nine AT&T customers in coopera-

tion with British Telecom and KDD of Japan, two leading international long distance companies.

To be an effective partner, AT&T needs a strong lineup of communications and data products backed by unparalleled service.

"We can't be a strategic partner unless we are a full service and product supplier," explained Doug Hoefner, an AT&T market planning manager.

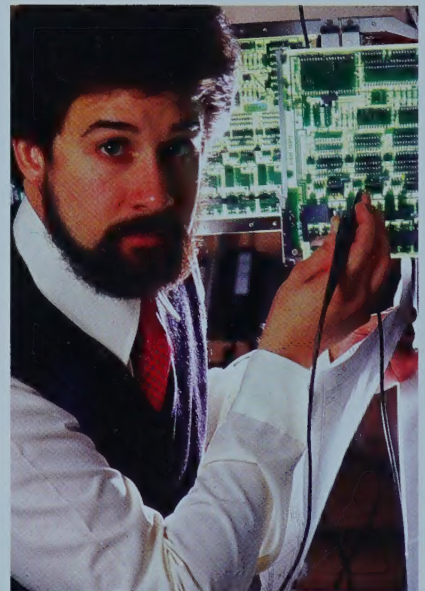
AT&T's product family for business customers is the industry's broadest and most powerful combination of communications and computer equipment. And that family was dramatically expanded in 1987.

AT&T strengthened its lead in the digital PBX market with three major product line enhancements. These were the System 85 Advanced Networking Switch, which offers ISDN capabilities, and expanded versions of the original System 85 and System 75.

On the computer side, AT&T's Data Systems Group streamlined its organization and totally renewed its product and systems offerings. Through two new major product introductions, AT&T clearly defined the direction and structure of its strategy in computers. Based on the cornerstones of industry standards and open systems architecture, that strategy is enjoying growing acceptance from customers and the industry at large.

Through alliances with computer industry leaders like Microsoft and Sun Microsystems, AT&T is moving to unify the different versions of the UNIX® computer operating system—at a time when use of this flexible system is rapidly increasing.

By the end of 1987, AT&T had expanded its computer sales force and was ahead of schedule for making this



(Above) Product developer Jim McLaughlin tests one of the circuit boards he designed for AT&T's System 75XE digital PBX, a new product that has strengthened AT&T's leadership in meeting the information movement and management needs of customers. (Opposite) The complex needs of the First National Bank of Chicago are the full-time concern of one of AT&T's national account teams.

part of its business profitable. Adding to the momentum was praise for the company's direction in computers from normally skeptical industry analysts and the press.

But the most meaningful endorsements came from customers such as McDonald's restaurants, Reynolds Metals, Hyatt hotels and Xerox Corporation. Demand for AT&T's latest products far exceeded 1987 forecasts. ■



Equipping an Industry

With sales of its 5ESS digital switching system setting the pace, AT&T held its lead in the competitive business of providing telecommunications network equipment to telephone companies and other customers who operate large networks. In 1983, AT&T shipped

200,000 lines of 5ESS switching systems from its Oklahoma City manufacturing plant. By 1987 the annual volume of lines shipped had climbed to over eight million, with newly developed software improvements adding to the versatility of the switch. At year's end, the total number of lines served by 5ESS switches had reached 20 million, and the largest capacity 5ESS to date (84,400 lines) was up and running in the Detroit suburb of Royal Oak, Michigan.

The 5ESS switch is produced by the AT&T Network Systems Group, which also manufactures and markets transmission equipment, fiber optic systems, cable, and operations support systems. It also provides related engineering, installation, and maintenance services. Its 1987 sales were several billion more than those of its closest worldwide competitor. The unit's business is primarily centered in the United States market, where it con-

tinues serving the needs of the seven regional Bell telephone companies.

With equipment purchases from all suppliers amounting to billions of dollars a year, those companies are critically important to AT&T, and their sophisticated needs help keep the company in the forefront of network equipment technology.

AT&T's strategy is to continue serving the needs of these customers by providing increasingly greater value while developing new business



with other customer groups in America and overseas.

In the United States these other customers are the independent telephone companies, original equipment manufacturers, and government agencies.

Purchases by this group are projected to grow at five to ten percent annually over the next five years. AT&T intends to be part of that growth.

The potential for growth is higher in the international network equipment market. AT&T cannot reasonably expect a dramatic short-term increase in overseas equipment sales. But the potential rewards are worth a long-term effort.

5ESS sales were made during 1987 in several Far Eastern countries. Construction was completed on a 5ESS manufacturing plant in Taiwan as a joint venture among AT&T and a group of Taiwanese partners. AT&T and Philips Telecommunications (APT), AT&T's joint company with N.V. Philips in the Netherlands, made sales of switching equipment in the Netherlands, the United Kingdom and Saudi Arabia. Sales of other types of network equipment and services were made in Japan, Europe, Canada and the Caribbean. AT&T began manufacturing fiber optic cable in Denmark through Lycom, a joint venture with the NKT company of Denmark.

Political barriers to doing busi-

ness in many countries are steep and may take years to scale. In December, though, AT&T completed a major agreement to manufacture and sell switching and transmission systems in Spain.

Meanwhile back in America, the company worked closely with its telephone company customers to help realize the potential of ISDN. AT&T is an active supporter of international standards for ISDN, which is a vital part of AT&T's data networking strategy. During 1987, AT&T participated in first installations of ISDN in cooperation with each of the seven regional phone companies and a major independent telephone company. ■



(Left) An AT&T 5ESS digital switching system bought by Southwestern Bell for one of its downtown Houston offices gets attention from Mike Greene (standing), a Southwestern Bell network maintenance manager, and Nick Nichols, a factory representative from AT&T's Network Systems plant in Oklahoma City, where the 5ESS is manufactured. (Above) Electronic components are manufactured with operating room style cleanliness in plants like this one run by the AT&T Microelectronics unit in Reading, Pennsylvania, where Dave Gilyard (left) and Doug Corcoran oversee the production of integrated circuits for AT&T's digital switching systems.

Widening our sights in microelectronics

When AT&T signed a long-term agreement to supply Western Digital Corp. with electronic devices at the rate of \$50 million a year, it

was more than a substantial contract. It was a coming out party for AT&T's electronic components business, run by AT&T Microelectronics.

In 1987, AT&T Microelectronics stepped up efforts to become a major supplier in the outside or "merchant" components market while remaining a vital and cost-competitive supplier for other AT&T units.

AT&T is concentrating on developing sophisticated technologies and products that help its own business units and its merchant market customers bring new systems to market faster.

This effort is reflected in the 1987 introduction of the world's most advanced digital signal processor, the WE[®] DSP32C. Also, the company was awarded a contract to produce high-performance gallium arsenide integrated circuits for the Department of Defense. These devices will be faster

and more complex than any gallium arsenide chips in production today.

Throughout 1987, AT&T solidified its position as a leading supplier of microchips designed to meet specific customer needs. The company opened its sixth custom microchip design center, in Bracknell, England. In November, AT&T opened Spain's first microchip design and manufacturing center. Located near Madrid, this facility is a joint venture with Telefonica, Spain's national telephone company.

AT&T's strategy in the merchant components market is building market position through strategic partner relationships with customers like Western Digital. This market now accounts for 17 percent of AT&T's approximately \$2 billion in total annual component sales, and AT&T is working toward the goal of making 50 percent of its sales to outside customers over the next five to seven years.

1987 was a significant step in that direction. ■

Big Ideas For Small Businesses

Late in December a cargo ship loaded with Spirit communications systems made in America by AT&T departed for the Far East. A product of the company's Shreveport, Louisiana plant, the

equipment was sold to distributors in Hong Kong and Taiwan.

It was a small economic victory but a huge symbolic one for the men and women of AT&T's General Business Systems, the organization that serves the intensely competitive small business equipment market.

The overseas sale underscores AT&T's long-term effort to match foreign competitors on price as well as product performance and to build the company's international marketing

skills. At home, AT&T held its position as the clear leader in the United States small business market while competing with 25 major foreign manufacturers and 2,500 distributors.

AT&T's General Business Systems division—part of the company's General Markets Group—sells and leases equipment to smaller businesses, which AT&T defines as companies with less than 80 phone lines.

AT&T sharpened its competitive edge in this market through overall

cost reduction efforts, aggressive and imaginative marketing, and new manufacturing technology that cut costs and boosted profit margins.

As projected, the equipment leasing business has declined every year since divestiture as more customers elect to buy their own equipment. To sustain this profitable business as long as possible, General Business Systems has worked to slow the erosion rate with programs such as the America's Choice package of leasing discounts introduced in 1987.

On the sales front, the company was the first in the industry to offer a two-tier marketing offensive with the well-received introduction of new, lower priced products. The new Spirit product family offers affordable, easy-



Just-In-Time production lines at AT&T's Shreveport, Louisiana, plant helped employees—including Sherry Orr (left) and Rosie Whitaker—cut production time for some products from three-and-a-half weeks down to two-and-a-half hours. (Inset) Betty McBride is proud of the new Spirit Communications Systems made in Shreveport and rapidly taking a leadership position in the small business market.



to-use systems for customers who want basic, high-quality equipment. The upgraded MERLIN® communications system family of products is for businesses that need high-function office telecommunications systems.

AT&T Ricoh Co., AT&T's joint venture with Ricoh of Japan, was so impressed with AT&T's MERLIN II system it signed a contract for a Japanese version of the system to be manufactured in Japan. Ricoh will sell the Japanese version as part of its office automation product line.

In the United States, AT&T pushed ahead with an innovative advertising campaign that stressed the value of service and quality.

The American market is a tough one for winners and losers these days.

It is growing very slowly, if at all. Profit margins are thin, with some major players losing money. And, as one industry observer put it, any company that wants to gain sales will have to take them "out of someone else's hide."

Carried by the momentum of 1987 sales that exceeded projections, the company is more than doubling its small business sales force in 1988 and increasing personal sales calls on potential new customers.

"When you want to take a customer away from the competition," explains Dave Laughland, a marketing director in AT&T General Business Systems, "you have to be out there in person going after the business." ■





CONSUMER PRODUCTS

Against All Odds

This was a comeback worthy of a sports melodrama. In 1983, AT&T's consumer products business was hanging on the ropes. A company that had never sold as much as a tele-

phone cord in the retail market was losing an over-the-counter free-for-all with competitors who glutted the market with a wave of cheap products.

AT&T's costs were too high. Its consumer sales were losing money. The future of its home phone leasing program was in doubt. And there was even consideration of dropping the

consumer products business. But as the *Washington Post* reported in August of 1987:

"Not all companies decide to raise the white flag in the face of a competitive battle... and (some) come out of the fight a winner. American Telephone & Telegraph is a case in point."

A comeback effort known at AT&T as Project Turnaround was

launched. And the success of that effort is written all over AT&T's 1987 results in the consumer products market. Market share and profitability are up sharply.

The transformation of AT&T Consumer Products meant full-scale changes in organization, marketing, manufacturing and advertising.

Costs had to come down, and they did—by an unprecedented 50 percent over three years. This meant difficult reductions in staff and eliminating half of the AT&T Phone Centers. It meant re-thinking the whole product line, and replacing it over the last two years with a more focused and vastly more customer-responsive and profitable lineup.

The TRIMLINE® telephone series is the mainstay of that lineup, as well as being the world's number one selling phone. Paced by the 5200 and



5300 Cordless phones introduced in 1987, AT&T became the clear leader in the fast-growing cordless product segment. The company also came from nowhere in the home telephone answering machine business to become the third largest player in that field by the end of 1987.

The gradual reduction in AT&T's consumer telephone equipment leasing business was slowed by a guarantee of rates and service enhancements that make leasing more attractive.

For the last two years, AT&T's plant in Singapore and other Asian facilities have manufactured most AT&T consumer products. The narrow profit margins in the consumer business forced AT&T to take advantage of lower manufacturing costs off-shore to stay in the consumer equipment business.

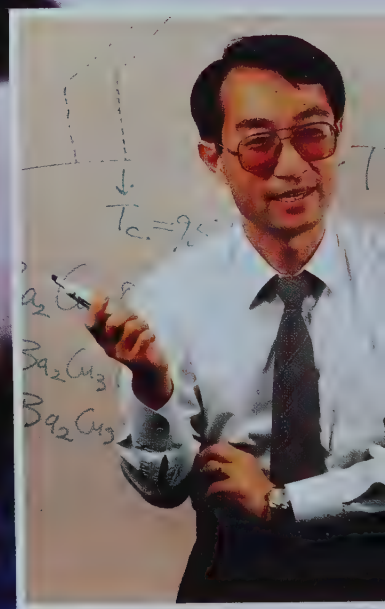
And there has been no loss of quality. Just the opposite. Market re-

search shows that consumers looking for quality turn to AT&T, and an aggressive advertising campaign brought that message home to millions of consumers.

AT&T's consumer products are now sold in 450 AT&T Phone Centers, 7,000 independent retail outlets and national department store chains, through nationwide customer contact centers reached by a single 800 number and direct marketing channels. Development work now under way will produce products that add new dimensions to the concept of home telecommunications.

With the United States consumer telecommunications market for equipment and long distance services worth \$23 billion a year by itself, AT&T sees no lack of potential. ■

People like these employees from the AT&T Phone Center at the Anaheim Plaza Mall in Anaheim, California, helped drive AT&T's comeback in the consumer products business. From left are store manager Virginia Reidenbach, Barbara Hough, Nick Andros, Denise Lopez, Kristen McElwee, Laurie Warren, Elaine Diersing, and Jodi Schumacher. (Inset) The new AT&T Cordless Telephone 5300 set a new standard in the cordless telephone market during 1987.



Turning Discovery Into Business

New discoveries in the phenomenon known as superconductivity dominated scientific headlines in 1987—and touched off a worldwide research race that saw AT&T Bell Laboratories running among the leaders in a fast field. Superconductivity is the ability of some materials to conduct electricity with

absolutely no resistance but, until recently, only at very low temperatures and at great expense.

Bell Laboratories research scientists added another entry to the race late in 1987 with a new process that produced a material able to carry a large superconducting current in a magnetic field—both hundreds of times greater than those reported before. This key milestone puts Bell Labs, as chemical research director Robert Dynes said, “on the edge now of practical things.”

Superconductivity is just one example of AT&T’s commitment to basic research, an important 10 percent of Bell Laboratories’ total research and development effort. AT&T’s commitment to continued leadership in re-

search and development is reflected in annual R&D expenditures that exceeded \$2.4 billion in 1987.

Bell Laboratories’ work in superconductivity is also an example of materials technology, one of the “strategic core technologies” vital to AT&T’s future. These technologies also include integrated circuits, photonics and software, all of which were advanced at Bell Laboratories in 1987.

New integrated circuit products were introduced, including the world’s most advanced digital signal processor and complex microchips that will help new telecommunications products meet the international standards for ISDN (Integrated Services Digital Network).

Research in photonics, which uses pulses of light instead of electrical signals to transmit information over optical fiber, led to a new experimental lightwave transmission system. This system, for the first time, used photonic amplifiers to boost lightwave signals and sent them over a record-breaking 223 miles without converting them first to electrons and then back to light. AT&T also quadrupled the speed of its most advanced commercial lightwave transmission system to carry the equivalent of more than 24,000 simultaneous phone calls through one pair of fibers. No system on earth is faster or has greater capacity.

In the strategic technology of software, Bell Labs is developing operations support systems that automate

operations, administration and maintenance in both public and customer-owned telecommunications networks. AT&T put this software leadership to work in the AT&T Worldwide Intelligent Network during 1987 with an enhanced version of a system called NEMOS that uses computerized “artificial” intelligence to automatically re-route telecommunications traffic. It analyzes network calling data, identifies where calls are not getting through due to high volume, finds spare network capacity and switches the flow of calls.

In all parts of AT&T, there is a major effort to establish an end-to-end quality process for “product realization:” efficiently moving a product from concept to development, to fabrication, and out the factory door. Customer needs are a vital concern at every stage of this R&D process.

For example, delegations of key people from AT&T’s major customers frequently come to the Laboratories to discuss how their business plans might benefit from technology coming down AT&T’s research pipeline.

“When customers come into Bell Laboratories,” said John Lawson, who directs one customer visit program, “we demonstrate that tomorrow and ten years from tomorrow, we’ll be there with the technology they need.” ■

Watched over by AT&T Bell Laboratories scientist David Johnson, a magnet hovers over a disk resting on his gloved hand. The disk, made of a superconducting compound, has been chilled to the temperature of liquid nitrogen. In a phenomenon unique to superconductors, the disk repels the cube’s magnetic field and keeps it suspended. (Inset) Sungho Jin, another Bell Laboratories scientist leading the way in superconductivity research.



Financial Section

RESULTS FOR 1987

Hard Work Begins to Pay Off

Nineteen eighty-seven was a year of visible accomplishments and continuing challenges. As the year closed, we could see measured progress toward the company's long-term

financial objectives and our goal of maximizing shareowner value.

Perhaps above all else, the encouraging results of 1987 are a testimonial to the decisive actions we took at the end of 1986. These steps were taken to reduce costs and expenses and improve our competitive position, and included a substantial charge against earnings to cover the cost of restructuring our business. These actions were costly in more than a financial sense; they had a significant impact on both our employee

body and our business. Recognizing this, we made concerted efforts to ease employees' transitions to new endeavors and to preserve the continuity of operations. The progress we made in 1987 is a credit to AT&T people who adapted quickly and creatively to changes in their company and jobs.

Positive benefits from these moves came sooner than anyone expected, principally in the form of lower costs, which were a strong contributor to our 1987 earnings per share of \$1.88. In addition to this traditional bottom-line result, other mea-



surements complete the story of our progress this year:

- Return on average shareowners' equity reached a post-divestiture record of 14.4 percent.

- Our stock price increased eight percent from its January opening to \$27.00 at year-end.

- We covered all capital expenditures and dividends from internally generated sources. In addition, our cash balance continued to increase, growing to a healthy \$2.8 billion.

However, we are not complacent. While we were pleased to see quarter-to-quarter revenue increases during 1987, revenues for the year in total decreased slightly. To attain our objectives, growth in revenues is essential. We also need to continue our progress in cost improvement. In the year ahead these will be our highest financial priorities.

The day-to-day operations of the company reflected our heightened em-

This new regional headquarters building being constructed in Chicago symbolizes AT&T's confidence in its future. Earnings for 1987 were the best since divestiture and demand for AT&T stock remained strong, even in the wake of October's stock market crash.

phasis on quality, not just in our products and services but in the efficiency of our internal operations.

Our annual productivity growth in manufacturing operations continued to average 10 percent, about double the productivity growth rate for durable goods manufacturing in the United States.

Progress has been made through the use of Just-In-Time (JIT) manufacturing initiatives. At AT&T's plant in Shreveport, Louisiana, for example, office communications systems that took three-and-a-half weeks to produce were rolling through the JIT assembly line in two-and-a-half hours.

Other efficiency improvements during 1987 included the centraliza-

tion and consolidation of support operations throughout the company. The new Contract Services Organization improved the terms and conditions on a wide range of goods and services purchased by our business units. The provisioning of computer services was also centralized, making progress toward increasing efficiency and eliminating duplication.

The sophisticated data networking technology we offer our large customers was also deployed internally to improve the productivity of our operations. Customers calling national 800 numbers in response to AT&T product promotions are now assisted by our people using state-of-the-art systems integration technology delivered by AT&T's own computers.

Along with the substantial cost reductions brought about by our restructuring activities, our data networking technology will aid us in achieving and maintaining a competitive edge.

Because of the extraordinary internal change AT&T experienced in recent years, we have focused increased attention on financial controls and the ability to measure and assess performance. In addition to the marketing and customer service efforts and restructuring activities that are a central part of AT&T's story in 1987, internal actions were taking place to enhance the company's financial reporting and analysis process.

We are implementing uniform financial systems throughout the company. We are developing our own billing system to provide improved information about revenues and customer accounts. We are expanding reported information about sources of AT&T's revenues to focus on revenue contributions from the major areas of our business.

These and other actions are providing improved information for financial statement users both within and outside AT&T.

The discussions that follow explain trends in AT&T's results of operations and financial position in 1987 compared with prior years and include for the first time an analysis of our major revenue streams.

Operating Revenues

Although total operating revenues were greater than we expected in 1987, a decrease was experienced from the 1986 level. The growth in overall sales of services and products was more than offset by the continuing reduction in rental revenues.

The increase in sales of services in both 1987 and 1986 was due primarily to volume growth in sales of telecommunications services. Service revenues from equipment installation and maintenance activities also increased in 1987 and 1986.

The increase in sales of products in 1987 reflected growth in sales of

certain telecommunications network products, microelectronics and special design products and consumer products. Sales of products decreased in 1986 from 1985, primarily as a result of declines in telecommunications network products and business and data products. Rental revenues declined during the past three years as expected, due to the continuing trend of customers deciding to purchase rather than lease telecommunications equipment.

Major Revenue Streams

AT&T operates predominantly in one industry, that of information movement and management. We offer a full range of data systems and telecommunications network products and services. Our revenues are received from four major areas of the business: Telecommunications Services; Business, Data and Consumer Products; Telecommunications Network Systems; and Other.

Approximately half of AT&T's total revenue stream is derived from the sale of **telecommunications services**. These services are provided via the public switched long distance network in the United States and throughout the world, and by individual customer long distance circuits, called private line service.

Revenues from telecommunications services, net of access charge payments to local telephone companies to connect with their networks, increased substantially in 1987 and 1986 as a result of increased calling volumes, particularly for international calling and 800 services. This strong volume growth reduced the decline in gross toll revenues stemming from the significant price reductions taken in those years.

In addition to the strong growth experienced in international and basic 800 services on the public switched network, new services such as Pro-America, Megacom, and 800 Ready-line continued to receive broad

acceptance. Private line revenues remained essentially stable in 1987 due to price restructuring.

We have significantly lowered our long distance prices since divestiture to reflect reductions in our access charge payments and other expenses, as well as to reflect rate of return limitations. We reduced prices by about 16% in 1987 and by another 3.5% on January 1, 1988. In total, prices have been cut by about 36% since January 1984. The Federal Communications Commission (FCC) lowered our authorized interstate rate of return to 12.20% from 12.75% on January 1, 1987.

Future growth opportunities for telecommunications service revenues will depend on overall market growth and on the introduction of new and enhanced services, including digital services. International services in particular are expected to provide significant growth opportunities; however, we expect intense competition to continue, both domestically and internationally. The extent to which AT&T benefits from the market's overall growth will depend on two factors. One is our ability to meet customer needs successfully. The other is the extent to which AT&T is permitted to compete equally with other long distance companies. Now constrained by a polarized regulatory process, AT&T is the only fully-regulated carrier in an increasingly competitive marketplace.

Because strong competition now exists in telecommunications services, we continue to seek regulatory changes at both the state and federal levels. Some form of lessened regulation has been implemented in 31 state jurisdictions. At the federal level, the FCC has proposed to cap prices as an alternative to rate of return regulation. The alternative would not cause prices to increase. We support this proposal as a transitional form of regulation that would benefit both shareholders and customers.



Traders on the floor of the Tokyo Stock Exchange on November 17, 1987, the day AT&T became the 48th American company to be listed among the 1,500 companies trading on this busy exchange.

The second major contributor to AT&T's revenues is the **business, data and consumer products** area, which sells, installs, maintains and rents communications and computer products for office and home use. Revenues in this category reflect mixed trends. Product sales in this area decreased slightly in 1987 over 1986, as growing revenues from consumer products, newer business systems, and recently introduced data products did not fully offset the

declines in older business systems and older data products revenues.

Solid successes have occurred in consumer products sales as we re-vamped our product line, adding to our high-quality product offerings. Market acceptance was good for recently introduced small-to-medium-sized PBXs and data products.

The business, data and consumer products market continues to be highly competitive. To meet this competition, we are strengthening

and focusing our marketing and customer service activities, as well as continuing to invest heavily in new product development.

Business, data and consumer product sales declined in 1986 primarily because of soft market conditions and competitive pressures. This decline followed the strong demand experienced in 1985 for business products.

Service revenues from installation and maintenance contracts associated with business, data and consumer products have grown over the three-year period, due to increased business activity and our focus on making customers aware of the value of these services. In contrast, rental revenues declined each year as customers decided to purchase equipment rather than enter into short-term rental arrangements.

Future trends in the business, data and consumer products area are expected to include a gradual growth in product sales and service revenues, which are often sold together in business contracts, and a continued decline in the revenue contribution of rentals.

The **telecommunications network systems** area represents slightly less than one-fifth of AT&T's total revenue stream and includes sales of equipment and related

Revenues

Dollars in millions

1987 1986 1985

Telecommunications Services

Public Switched Network	\$30,302	\$31,609	\$32,461
Private Line	4,845	4,825	4,249
Less: Access Charges	17,611	19,593	21,521
	<u>17,536</u>	<u>16,841</u>	<u>15,189</u>

Business, Data and Consumer Products

Sales	3,155	3,212	4,009
Services	1,439	1,392	963
Rentals	3,728	4,796	5,789
	<u>8,322</u>	<u>9,400</u>	<u>10,761</u>

Telecommunications Network Systems

	6,179	6,185	6,585
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Other Revenues

Sales	872	781	641
Services	684	875	1,241
Rentals	5	5	0
	<u>1,561</u>	<u>1,661</u>	<u>1,882</u>

Total Revenues

	<u>\$33,598</u>	<u>\$34,087</u>	<u>\$34,417</u>
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services to industry users of telecommunications equipment. This equipment includes switching systems, transmission equipment, cable, wire, and other products used by telephone companies and other large communications equipment users.

Revenues in this area of the business held constant in 1987 despite increased competition and the desire of some of our customers to diversify supply channels. Switching systems and cable and wire sales increased over 1986 levels, while transmission equipment and some other product sales were down. Sales in 1986 declined from 1985 levels largely because the operating telephone companies' equal access construction requirements created unusually high demand in 1985.

To respond to competition, the company is developing increasingly sophisticated and "feature rich" product offerings, enhancing customer service and support functions, and actively exploring new domestic and international markets. AT&T is committed to maintaining its leadership position in the telecommunications network equipment market. Because of the long-term prospects for revenue expansion in this market, the company will aggressively pursue new sales opportunities, both in this country and overseas. In the short term, however, sales may remain flat as competitive pressures continue to limit growth in AT&T's traditional markets.

The last major category of revenues, **other revenues**, represents a relatively small portion of our total revenue stream but one that features growth in product sales. These revenues include sales by AT&T Microelectronics (formerly called Components and Electronic Systems), which produces silicon chips, power supply devices, custom devices and other electronic components. In addition, other revenues include the sales of

special design products and related special services by AT&T's Federal Systems unit to the U.S. government. Sales of custom devices and special design products increased significantly over the three-year period.

Service revenues in the other category are primarily Shared Network Facilities Agreement (SNFA) revenues, which declined as expected during the three-year period. These revenues arose out of the January 1, 1984 Bell System divestiture and represent payments from telephone companies to AT&T for leased facilities, which were formerly jointly owned by the telephone companies and AT&T. As these arrangements are of a transitional nature, SNFA revenues are expected to continue decreasing each year.

The other services category also includes revenues from shareholder services provided by our American Transtech unit and other miscellaneous revenues. Rental revenues in the other category represent minor leasing activities.

Costs and Expenses

Total costs and expenses decreased 10.8% in 1987 reflecting network modernization, force reductions, more efficient manufacturing and services operations and improved inventory management. The substantial 1987 improvements were partially offset by increased marketing and sales expenses and costs associated with the development and implementation of an internal revenue, billing and customer account management program.

Total costs and expenses in 1986 increased 7.4% from 1985, due to charges for business restructuring and inventory and asset writedowns,

which were partially offset by reductions in pension expense associated with the adoption of Statement of Financial Accounting Standards No. 87 (FAS 87), "Employers' Accounting for Pensions." See Notes (B) and (L) to the financial statements.

Volume growth coupled with cost containment resulted in a steady improvement in the gross margin on sales of services. Our cost of services as a percent of service revenues was 44.7% in 1987 and 46.9% in 1986, compared with 52.3% in 1985.

Cost of products decreased to 58.8% of product revenues in 1987 from 70.7% in 1986 and 62.9% in 1985, from across-the-board cost reductions and productivity improvement efforts.

Product margins in 1987 and 1986 reflected the effects of price discounting, and in 1986 and 1985 were also significantly affected by charges for the writedown of inventory values.

Cost of rentals as a percent of rental revenues increased to 47.3% and 43.7% in 1987 and 1986, respectively, from 33.4% in 1985. The increases in both years are primarily attributable to higher depreciation rates on rental equipment in recognition of shorter depreciable lives.

Selling, general and administrative expenses increased slightly to 33.1% of total operating revenues in 1987, compared with 32.5% in 1986 and 32.3% in 1985. Savings from downsizing efforts were offset by increases in marketing and sales expenses and the development and implementation costs for customer billing and related support functions.

We are assuming increased responsibility for long distance services billing and account management functions, which currently are performed primarily by local telephone companies. Over the long term, this

effort will further improve our ability to manage all aspects of our customer relationships. Additionally, we will be better positioned to control costs associated with billing and account management activities.

We continued to make significant expenditures for research and development in each of the past three years. The increase of 7.7% in 1987 reflects our commitment to new product and service development, as well as higher depreciation expenses for certain equipment used in research.

The provision for business restructuring of \$2.2 billion in 1986 represented the estimated cost to reduce the workforce and consolidate various facilities and factories over a several year period. The programs and plans affect all AT&T business units and support organizations.

Significant progress has been made in resizing activities, and actions are proceeding according to plans. To date, the company has closed and consolidated clean rooms and support facilities used to produce semiconductors in Kansas City, Missouri, and in Allentown and Reading, Pennsylvania; also, on January 20, 1988, the closing of AT&T's Winston-Salem, North Carolina work location was announced.

At year-end 1987, the remaining business restructuring reserve totaled \$1.2 billion and we believe the reserve remains adequate for the completion of our force and facility consolidation activities. About one-half of our force reduction activities had been completed by year-end; coupled with force additions in certain strategic growth areas of the business, the net decrease in our workforce during 1987 was 13,900.

Other Income and Interest Expense

Other income—net decreased in 1987 primarily due to the unusually high miscellaneous income reflected in 1986 results. During 1986, other income—net included an award for damages paid by the Republic of Iran and an increase in the value of our equity investment in Olivetti. These items were the principal reason for the increase in other income from the 1985 level. See Note (C) to the financial statements.

Interest expense related to debt has declined over the three-year period as a result of our continuing efforts to reduce financing costs through retirements and refinancing of debt. The growth in total interest expense in 1987 was primarily caused by increases in interest on accrued liabilities other than short- and long-term debt.

Provision for Income Taxes

In 1987, income tax expense increased significantly as a result of substantially higher earnings compared with 1986. The 1986 provision for income taxes was reduced by \$1.4 billion as a result of charges for business restructuring and other major actions. This reduction was reflected almost entirely in deferred taxes. During 1987, we incurred \$2.8 billion in expense for income, property and other taxes, as compared with \$1.5 billion in 1986 and \$2.6 billion in 1985.

Federal income tax expense in 1987 was reduced from what it otherwise would have been as a result of provisions enacted by the 1986 Tax Reform Act. Earnings in 1987 benefited by approximately 14 cents per share from the new tax law. The most significant benefit came from the re-

duction in the statutory federal income tax rate from 46% to 40%. We expect to receive additional benefits from the 1986 Tax Reform Act in 1988, due largely to a further reduction in the statutory federal income tax rate to 34%.

The recently issued Statement of Financial Accounting Standards No. 96 (FAS 96), "Accounting for Income Taxes," must be adopted no later than 1989. Under the new statement, deferred taxes are computed based on the enacted tax rates for the years in which these taxes will be payable or refundable.

While the impact is not currently estimable, it is expected that there will be a significant positive effect on net income in the year the standard is adopted. In years subsequent to adoption, net income may be impacted, possibly by substantial amounts, as a result of increases or decreases in statutory income tax rates.

Change in Depreciation Method

In 1986, the cumulative prior years' effect of a change in depreciation method from group to unit for factory machinery and laboratory equipment reduced net income by \$175 million or \$.16 per share. We implemented this change to provide improved assignment of costs to products and better identification of service lives. See Note (B) to the financial statements.

Net Income

Net income in 1987 grew primarily as a result of higher operating income due to growth in long distance revenues and cost reduction efforts, combined with the effect of the 1986 special charges.

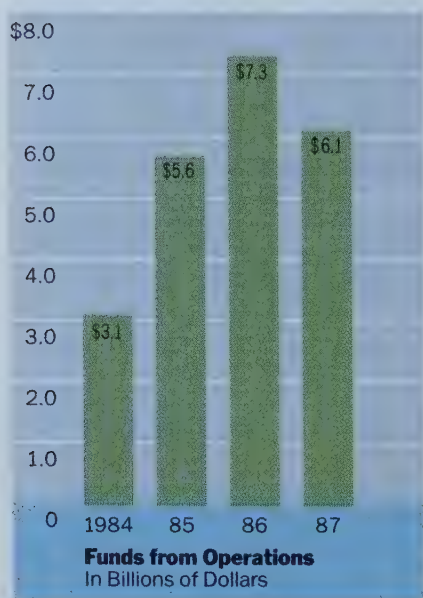
Results in 1986 were reduced by \$1.7 billion for charges for business restructuring, a change in accounting for depreciation, and a writedown of assets and inventory. These actions reduced 1986 earnings by \$1.59 per share, resulting in only a small profit of five cents per share. We are seeing the benefits from restructuring activities in our earnings and expect improvements to continue in the future.

Our interstate earnings on telecommunications services in 1987, 1986, and 1985 were within the limit allowed by the FCC.

Dividends on preferred shares were reduced by \$63 and \$24 million in 1987 and 1986, respectively, through the redemption of \$830 and \$545 million of preferred stock during these years.

Working Capital and Liquidity

Funds from operations amounted to \$6.1 billion in 1987, enabling us to



cover expenditures for capital investments and dividends from internally generated sources for the second consecutive year. These expenditures accounted for 80.7% of funds from operations in 1987, compared with 68.3% and 106.8% in 1986 and 1985, respectively. Our strong cash position allowed us to reduce preferred shares and retire debt outstanding of \$1.2 billion in 1987 and \$2.4 billion in 1986.

In 1987, funds from operations declined despite the substantial growth in net income, primarily due to the payment of liabilities related to carrying out our business restructuring and downsizing actions.

The increase in working capital (excluding cash and temporary investments, debt maturing within one year, dividends payable and deferred income taxes) in 1987, follows the significant decrease experienced in 1986. This 1986 decrease was partly the result of reserves created for business restructuring, but also reflected our success in improving the management of receivables and inventories.

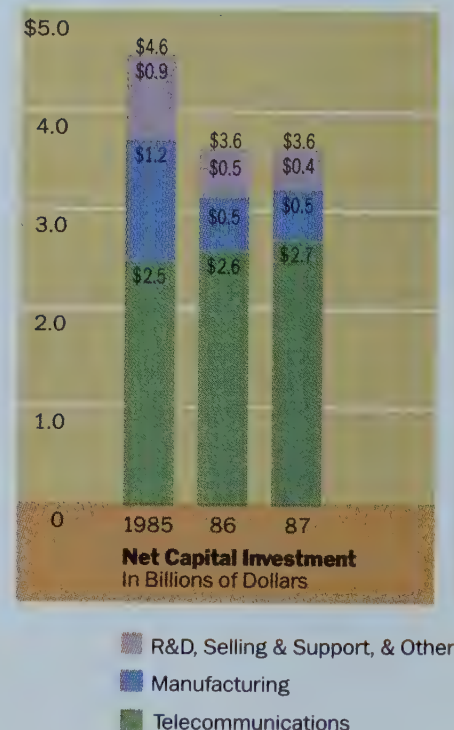
With almost \$2.8 billion in cash and temporary cash investments, strong cash flow from operations, and reduced long-term liabilities, we are in a position to meet our capital requirements internally and have the flexibility to take advantage of appropriate investment and financing opportunities as they arise. For example, we announced in January, 1988, an agreement to purchase, over the next three years, up to a 20% interest in Sun Microsystems, Inc., a computer company. This action should provide strategic benefits to both parties. We also increased our ownership in our joint venture with N.V. Philips from 50% to 60% in January, 1988.

Capital Investment

During 1987, expenditures for capital investment, including net additions to property, plant and equipment and the net change in investments, amounted to \$3.6 billion. In 1986 and 1985, these expenditures totaled \$3.6 and \$4.6 billion, respectively.

Approximately \$2.7 billion was spent in 1987 for expansion and continuing quality enhancement of our long distance network. We plan to invest approximately \$3 billion in our worldwide network in each of the years 1988 and 1989. Digital route miles will nearly double to 88,000 worldwide by 1991. Capital spending for the network has increased in each of the past three years and total gross expenditures were approximately \$7.8 billion during this period.

Investment to modernize our domestic and offshore manufacturing facilities has been primarily to attain world-class standards. Such state-of-the-art processes as surface mount technology and Just-In-Time manufac-



turing are being implemented. Investment in our manufacturing facilities was approximately \$500 million during each of the years 1987 and 1986, a decrease from the 1985 level. Gross expenditures have amounted to some \$2.2 billion since the beginning of 1985.

Other significant capital expenditures have been incurred for research and development equipment supporting new and existing products and services. In addition, we have invested capital in programs designed to enhance product distribution channels, customer service and support functions, and sales force productivity.

In 1987, property, plant and equipment—net declined by 1.9% as capital additions were more than offset by depreciation and retirements.

Investments increased by 6.8% in 1987, primarily as a result of favorable changes in foreign exchange rates and profits generated from our investments. These increases were partially offset by the sale of our interest in a real estate joint venture.

The 38.3% increase in 1987 in other assets consisted primarily of prepaid pension costs and capitalized software development costs.

Financing Activity and Capitalization

Strong cash flow from operations during 1987 permitted us to continue efforts toward increased financial flexibility. We redeemed \$830 million of preferred stock and retired \$417 million of long-term debt. Our external financing was limited to \$343 million. Consequently, for the second consecutive year, we have reduced our utilization of external sources of financing.

As a ratio to total capital, debt decreased to 35.2% from 35.8%, preferred shares declined to 0.4% from 4%, and common shareowners' equity increased to 64.4% from 60.2% at December 31, 1987 and 1986, respectively. However, total capital remained relatively unchanged in 1987 as financing activity was offset by retained earnings generated from our operations.

In 1987, debt retirements consisted of regularly scheduled repayments. Over the past three years, \$2.9 billion of long-term debt has been retired, including the call of \$1.9 billion of high-cost debt, a portion of which was refinanced in 1986. Total debt outstanding has decreased by \$2.4 billion since divestiture.

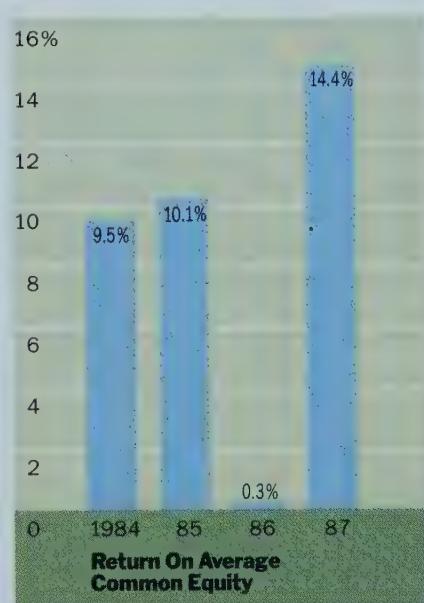
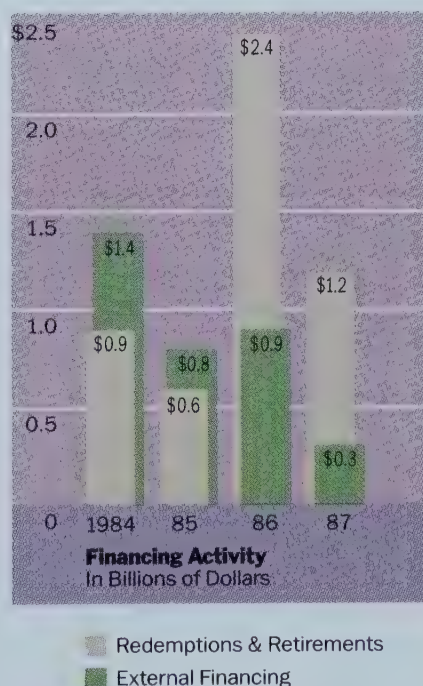
In 1988, we will implement the Statement of Financial Accounting Standards No. 94 (FAS 94), "Consolidation of All Majority-owned Subsidiaries." The new accounting standard will require that the accounts of AT&T Credit Corporation, a wholly-owned finance subsidiary accounted for under the equity method, be included in

our consolidated financial statements. This accounting change will increase the consolidated debt ratio, but will not affect net income. If FAS 94 had been adopted in 1987, the debt ratio would have been 38% instead of 35.2% at year-end.

The Statement of Financial Accounting Standards No. 95 (FAS 95), "Cash Flow Reporting," will also be adopted in 1988. The new standard requires reporting cash flows from operating, investing and financing activities. This will necessitate a change in our presentation of the Consolidated Statements of Funds Flow, but will not affect our financial position or results of operations.

Preferred shares subject to mandatory redemption declined \$830 and \$545 million in 1987 and 1986, respectively, primarily through the exercise of optional redemption provisions.

Total common shareowners' equity increased by 6.7% in 1987 as a result of growth in earnings from operations. The return on average common equity was 14.4% in 1987, compared with 0.3% and 10.1% in 1986 and 1985, respectively.



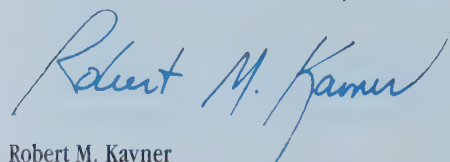
Report of Management

The accompanying financial statements, which consolidate the accounts of American Telephone and Telegraph Company and its subsidiaries, have been prepared in conformity with generally accepted accounting principles.

The integrity and objectivity of data in these financial statements, including estimates and judgments relating to matters not concluded by year-end, are the responsibility of management as is all other information included in this Annual Report unless indicated otherwise. To this end, management maintains a system of internal accounting controls. Our internal auditors monitor compliance with it in connection with an annual plan of internal audits. The system of internal accounting controls, on an ongoing basis, is reviewed, evaluated and revised as necessary in view of the results of internal and independent audits, management recommendations, changes in the Company's business, and other conditions which come to management's attention. Management believes that the Company's system, taken as a whole, provides reasonable assurance (1) that financial records are adequate and can be relied upon to permit the preparation of financial statements in conformity with generally accepted accounting principles and (2) that access to assets is permitted only in accordance with management's authorizations. Recorded assets are compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Management also seeks to assure the objectivity and integrity of the Company's financial data by the careful selection of managers, by organizational arrangements that provide an appropriate division of responsibility, and by informational programs aimed at assuring that its policies, standards, and managerial authorities are understood throughout the organization. Management is also aware that changes in operating strategy and organizational structures can give rise to disruptions in internal controls. Special attention is given to controls while these changes are being implemented.

These financial statements have been examined by Coopers & Lybrand, Independent Certified Public Accountants. Their examinations are performed in accordance with generally accepted auditing standards and include selective tests of transactions and a review of internal accounting controls.

The Audit Committee of the Board of Directors, which is composed of Directors who are not employees, meets periodically with management, the internal auditors, and the independent auditors to review the manner in which they are performing their responsibilities and to carry out its oversight role with respect to auditing, internal accounting controls, and financial reporting matters. Both the internal auditors and the independent auditors periodically meet alone with the Audit Committee and have free access to the Audit Committee at any time.



Robert M. Kavner
Senior Vice President and Chief Financial Officer



James E. Olson
Chairman of the Board and Chief Executive Officer

Report of Independent Certified Public Accountants

To the Shareowners of American Telephone and Telegraph Company:

We have examined the consolidated balance sheets of American Telephone and Telegraph Company and subsidiaries at December 31, 1987 and 1986, and the related consolidated statements of income and funds flow for the years ended December 31, 1987, 1986 and 1985. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the consolidated financial position of American Telephone and Telegraph Company and subsidiaries at December 31, 1987 and 1986, and the consolidated results of their operations and changes in their financial position for the years ended December 31, 1987, 1986 and 1985, in conformity with generally accepted accounting principles consistently applied during the three-year period, except for the changes, with which we concur, in the methods of accounting for depreciation and pensions as described in Notes B and L to the consolidated financial statements.



1251 Avenue of the Americas
New York, New York
February 8, 1988

Consolidated Statements of Income

Years ended December 31

Dollars in millions (except per share amounts)

	1987	1986	1985
Sales and Revenues			
Sales of services, net of access charges (A)	\$19,659	\$19,108	\$17,393
Sales of products	10,206	10,178	11,235
Rental revenues	3,733	4,801	5,789
Total operating revenues	<u>33,598</u>	<u>34,087</u>	<u>34,417</u>
Operating Costs and Expenses			
Cost of services	8,796	8,954	9,097
Cost of products	6,000	7,196	7,066
Cost of rentals	1,766	2,099	1,936
Selling, general and administrative expenses	11,107	11,071	11,104
Research and development expense (A)	2,453	2,278	2,228
Provision for business restructuring	—	2,157	—
Total operating costs and expenses (B) (L) (M)	<u>30,122</u>	<u>33,755</u>	<u>31,431</u>
Operating income	3,476	332	2,986
Other income—net (C)	334	402	252
Interest expense (K)	634	613	692
Income before income taxes	3,176	121	2,546
Provision for income taxes (D)	1,132	(193)	989
Income before cumulative effect of a change in depreciation method	2,044	314	1,557
Cumulative prior years' effect (to December 31, 1985) of a change in depreciation method (B)	—	(175)	—
Net Income	2,044	139	1,557
Dividends on preferred shares	23	86	110
Income applicable to common shares	<u>\$ 2,021</u>	<u>\$ 53</u>	<u>\$ 1,447</u>
Weighted average common shares outstanding (millions)	1,073	1,071	1,058
Earnings per Common Share before cumulative effect of a change in depreciation method	\$ 1.88	\$.21	\$ 1.37
Cumulative prior years' effect of a change in depreciation method (B)	—	(.16)	—
Earnings per Common Share	<u>\$ 1.88</u>	<u>\$.05</u>	<u>\$ 1.37</u>

The notes on pages 30 through 35 are an integral part of the financial statements.

Consolidated Balance Sheets

At December 31

Dollars in millions (except per share amounts)

1987

1986

*Assets***Current Assets**

Cash and temporary cash investments	\$ 2,785	\$ 2,602
Receivables less allowances (K)	7,689	7,820
Inventories (A)	3,157	3,519
Deferred income taxes	1,175	1,477
Other current assets	164	154

Total current assets **14,970** 15,572

Property, plant and equipment—net (E) (F)	20,681	21,078
Investments (G)	1,063	995
Other assets	1,712	1,238
Total Assets	\$38,426	\$38,883

*Liabilities and Shareowners' Equity***Current Liabilities**

Accounts payable	\$ 4,680	\$ 4,625
Payroll and benefit related liabilities	2,332	2,499
Debt maturing within one year (H)	669	740
Dividends payable	323	338
Other current liabilities	2,571	3,015

Total current liabilities **10,575** 11,217

Other Liabilities and Deferred Credits

Long-term debt including capital leases (F) (H)	7,243	7,309
Other liabilities	1,034	1,144
Deferred income taxes	3,433	3,065
Unamortized investment tax credits	1,342	1,423
Other deferred credits	262	263

Total other liabilities and deferred credits **13,314** 13,204

Preferred shares subject to mandatory redemption (J) **82** 912

Common Shareowners' Equity (I)

Common shares—par value \$1 per share	1,074	1,072
Authorized shares: 1,500,000,000		
Outstanding shares: 1,073,674,000 at Dec. 31, 1987;		
1,071,987,000 at Dec. 31, 1986		
Additional paid-in capital	8,605	8,544
Retained earnings	4,776	3,934

Total common shareowners' equity **14,455** 13,550

Total Liabilities and Shareowners' Equity **\$38,426** **\$38,883**

The notes on pages 30 through 35 are an integral part of the financial statements.

Consolidated Statements of Funds Flow

Years ended December 31

Dollars in millions	1987	1986	1985
<i>Funds (cash and temporary cash investments) at January 1</i>	\$ 2,602	\$ 2,214	\$ 2,140
Sources of Funds			
From operations:			
Net income	2,044	139	1,557
Depreciation	3,724	3,925	3,232
Net (increase) decrease in working capital, detailed below	(73)	2,661	13
Noncurrent portion of provision for business restructuring	—	1,159	—
Deferred income taxes—net	643	(391)	855
Less: Equity investment income in excess of dividends	17	24	23
Other adjustments for non-cash items	238	359	61
Total from operations before cumulative prior years' effect of a change in depreciation method	6,083	7,110	5,573
Cumulative prior years' effect of a change in depreciation method	—	175	—
Total from operations	6,083	7,285	5,573
From external financing:			
Increase in long-term debt including capital leases	53	729	141
Issuance of common shares	63	64	671
Increase in short-term borrowing—net (H)	227	108	—
Total from external financing	343	901	812
From other sources:			
Decrease in investments—net	74	31	—
Sales to affiliate of long-term receivables—net (G)	—	—	408
Total from other sources	74	31	408
Total Sources of Funds	6,500	8,217	6,793
Uses of Funds			
Additions to property, plant and equipment—net (K)	3,662	3,629	4,178
Dividends paid	1,320	1,381	1,374
Retirement of long-term debt including capital leases	417	1,893	569
Increase in investments—net	—	—	402
Increase in other assets	281	477	123
Decrease in short-term borrowing—net	—	—	22
Redemption of preferred shares	830	545	37
Other—net	(193)	(96)	14
Total Uses of Funds	6,317	7,829	6,719
<i>Funds (cash and temporary cash investments) at December 31</i>	\$ 2,785	\$ 2,602	\$ 2,214
Working capital components (excluding cash and temporary investments, debt maturing within one year, dividends payable and deferred income taxes)			
(Increase) decrease in net receivables	\$ 131	\$ 1,123	\$ 420
(Increase) decrease in inventories	362	1,027	(139)
(Increase) decrease in other current assets	(10)	9	119
Increase (decrease) in accounts payable	55	(309)	(142)
Increase (decrease) in payroll and benefit related liabilities	(167)	300	85
Increase (decrease) in other current liabilities	(444)	511	(330)
Net (increase) decrease in working capital	\$ (73)	\$ 2,661	\$ 13

The notes on pages 30 through 35 are an integral part of the financial statements.

Notes to Consolidated Financial Statements

Dollars in millions (except per share amounts)

(A) Summary of Significant Accounting Policies

Consolidation

The consolidated financial statements include the accounts of AT&T and all its significant majority-owned subsidiaries other than AT&T Credit Corporation, which is accounted for under the equity method. Investments in 20 to 50 percent-owned companies and joint ventures also are accounted for under the equity method. Other investments are recorded at cost.

Industry Segmentation

AT&T operates predominantly in a single industry segment, the information movement and management industry. This segment constitutes more than 90% of AT&T's total operating revenues, operating income, and identifiable assets. AT&T also is engaged in other activities that in the aggregate are not material and, as such, are not separately reported. These activities include the furnishing of shareholder services and the distribution of computer equipment through retail outlets.

Access Charges

Local telephone companies charge for access to their local telephone networks. These access charges are collected from customers by AT&T and paid to the local telephone companies. Since these charges are collected on behalf of the local telephone companies, access charges are not included in AT&T's reported operating revenues. Access charges amounted to \$17,611, \$19,593, and \$21,521 for 1987, 1986, and 1985, respectively.

Research and Development

Research and development expenditures are charged to expense as incurred. Development costs of software to be marketed are charged to research and development expense until technological feasibility is established after which remaining software production costs are capitalized as other assets. These costs are amortized to product costs over the estimated period of sales, and such amortization amounted to \$110, \$93, and \$42 during 1987, 1986, and 1985, respectively. Unamortized software production costs were \$287 and \$206 at December 31, 1987 and 1986, respectively.

Investment Tax Credits

For financial reporting purposes, AT&T amortizes the investment tax credit (ITC) as a reduction of income tax expense over the useful life of the property that produced the credit. See also Note (D).

Inventories

Inventories are stated at the lower of cost or market. Cost is determined principally on a first-in, first-out basis for raw materials and work in process and on an average cost basis for completed goods.

At December 31	1987	1986
Completed goods	\$1,607	\$1,728
In process	1,087	1,300
Raw materials and supplies	463	491
Total	<u>\$3,157</u>	<u>\$3,519</u>

Plant and Equipment

Commencing in 1984, investment in plant and equipment is stated at cost excluding intercompany profits. Rate regulated plant assets acquired prior to 1984 are recorded at cost, including reasonable intercompany profits in accordance with regulated accounting practices. At divestiture, the carrying value of these assets was significantly reduced to economic value in a competitive environment. These reductions were recorded primarily as increases in the depreciation reserve. Beginning in 1986, the gain or loss on sale of factory machinery and laboratory equipment in the normal course of AT&T's business is reflected in operating results. When other depreciable plant is retired, the amount at which such plant has been carried in plant in service is credited to plant and generally charged to accumulated depreciation. See also Note (E).

Depreciation

Depreciation is calculated using either the group method or, commencing in 1986 for factory machinery and laboratory equipment, the unit method. Factory facilities placed in service subsequent to December 31, 1979 are depreciated on an accelerated basis. All other plant and equipment is depreciated on a straight line basis. See also Note (B).

(B) Business Restructuring, Accounting Change and Other Charges

In 1986, pretax income was reduced by \$2,489 (\$1,295 after taxes or \$1.21 per share) for force reductions and facility consolidations expected to occur over a several year period, as well as for a change in accounting for depreciation, as described below:

— \$2,157 (\$1,120 after taxes or \$1.05 per share) provision for business restructuring, consisting of \$1,125 for force termination costs and \$1,032 for consolidation of factories, warehouses, and other facilities.

— \$332 (\$175 net of taxes or \$.16 per share) cumulative prior years' effect (to December 31, 1985) of a change from group to unit method of depreciation for factory machinery and laboratory equipment. This change was implemented to provide improved assignment of costs to products and better identification of service lives. The effect of this change on depreciation for any of the years presented is not material.

In addition, \$761 (\$409 after taxes or \$.38 per share) was charged to operations in the fourth quarter of 1986 for inventory writedowns, primarily for communications and office automation products, and for increased depreciation primarily related to rental equipment and other assets.

The Company believes the business restructuring reserve established in 1986 remains adequate for the completion of its force downsizing and facility consolidation activities. At December 31, 1987, the business restructuring reserve totaled \$1,175.

(C) Other Income—Net

	1987	1986	1985
Interest, royalties and dividends . .	\$266	\$267	\$260
Equity earnings from unconsolidated entities	59	58	44
Miscellaneous-net	9	77	(52)
Total	<u>\$334</u>	<u>\$402</u>	<u>\$252</u>

Miscellaneous-net for 1986 includes \$73 for an award for damages paid by the Republic of Iran, representing net amounts due AT&T, plus interest, which were written off as uncollectible in prior years. Also included is a gain of \$40 reflecting AT&T's portion of the premium above book value paid by third parties for newly issued shares of Ing. C. Olivetti & C., S.p.A..

(D) Income Taxes

The provision for income taxes consists of the following components:

	1987	1986	1985
Current			
Federal	\$ 432	\$ 269	\$ 103
State and local	127	118	117
Foreign	12	7	22
	<u>571</u>	<u>394</u>	<u>242</u>
Deferred			
Federal	533	(410)	743
State and local	109	18	109
Foreign	1	1	3
	<u>643</u>	<u>(391)</u>	<u>855</u>
Deferred investment tax credits-net*	(82)	(196)	(108)
Provision for income taxes	<u>\$1,132</u>	<u>\$(193)</u>	<u>\$ 989</u>

*Net of amortization of \$330 in 1987, \$333 in 1986, \$300 in 1985.

The provision for income taxes in 1986 was negative because it reflected future tax benefits associated with the restructuring charges described in Note (B) and amortization of

investment tax credits. In the absence of the provision for business restructuring, the provision for income taxes would have been \$844 in 1986.

Deferred taxes, resulting from timing differences in the recognition of revenue and expense items for tax and financial statement purposes, were as follows:

	1987	1986	1985
Property, plant and equipment . . .	\$ 39	\$ 403	\$ 638
Business restructuring, force and facility consolidation	502	(851)	234
Pensions and other benefits	174	279	—
Investment credits utilized	94	320	2
Inventory valuation	96	(230)	(26)
Reversal of a reserve for refunds . .	—	—	161
Other timing differences	(262)	(312)	(154)
Total	<u>\$ 643</u>	<u>\$(391)</u>	<u>\$ 855</u>

Principal causes for the differences between federal income tax expense computed at the federal statutory rate and AT&T's provision for income taxes are explained below:

	1987	1986	1985
Statutory federal income tax rate . .	40%	46%	46%
Federal income tax at statutory rate	\$1,270	\$ 56	\$1,171
Amortization of investment tax credits	(330)	(333)	(300)
State and local income taxes, net of federal income tax effect	142	73	122
Research credits	(20)	(42)	(37)
Other differences	70	53	33
Provision for income taxes	<u>\$1,132</u>	<u>\$(193)</u>	<u>\$ 989</u>

The recently issued Statement of Financial Accounting Standards No. 96 (FAS 96), "Accounting for Income Taxes," which must be adopted no later than 1989, requires deferred income taxes to be determined based on the enacted income tax rates for the years in which these taxes will be payable or refundable. While the impact of FAS 96 will significantly increase net income in the year of adoption, the amount is not reasonably estimable at this time.

(E) Property, Plant and Equipment

At December 31	1987	1986
Land and improvements	\$ 512	\$ 499
Buildings and improvements	6,502	6,199
Machinery, electronic and other equipment	32,532	33,190
Total property, plant and equipment	39,546	39,888
Less: Accumulated depreciation . .	18,865	18,810
Property, plant and equipment—net	<u>\$20,681</u>	<u>\$21,078</u>

(F) Leases

As Lessor: The Company leases equipment to others on an operating lease basis; the majority of operating leases are cancelable. AT&T's net investment in leased equipment was as follows:

At December 31	1987	1986
Machinery and equipment	\$3,402	\$4,060
Less: Accumulated depreciation . .	1,550	1,521
Net investment	\$1,852	\$2,539

AT&T also leases its products to others under sales-type leases. The receivables that arise under the long-term agreements are sold to AT&T Credit Corporation. Also see Note (G).

As Lessee: AT&T leases land, buildings and equipment through contracts that expire in various years. Future minimum lease payments at December 31, 1987 are as follows:

	Capital Leases	Operating Leases
1988	\$150	\$ 517
1989	93	395
1990	77	288
1991	56	222
1992	46	200
Later years	180	906
Total minimum lease payments . .	602	\$2,528
Less: Estimated executory cost . . .	4	
Imputed interest	201	
Present value of net minimum lease payments	\$397	

Rental expense for operating leases was \$906 in 1987, \$987 in 1986, and \$1,041 in 1985.

(G) Investments

Investment in Finance Subsidiary

The Company's investment in its wholly-owned unconsolidated finance subsidiary, AT&T Credit Corporation (AT&T-Credit), amounted to \$309 and \$254 at December 31, 1987 and 1986, respectively. AT&T-Credit, which is accounted for under the equity method, is engaged in offering financing arising primarily from product sales by AT&T to customers. During 1987, 1986, and 1985, the Company sold to AT&T-Credit \$201, \$380, and \$921, respectively, of sales-type lease receivables—net of unearned interest income. AT&T-Credit has full recourse against AT&T for \$544 of its net investment in finance assets at December 31, 1987. AT&T-Credit's earnings of \$19, \$14, and \$14 in 1987, 1986, and 1985, respectively, are included in other income in AT&T's consolidated statements of income. In 1988, the accounts of AT&T-Credit will be included in AT&T's consolidated financial statements due to the adoption of the Statement of Financial Accounting Standards No. 94 (FAS 94), "Consolidation of All Majority-owned Subsidiaries." This accounting change will increase consolidated debt, but will not affect net income. If FAS 94 had been adopted in 1987, consolidated debt would have increased by approximately \$1 billion.

AT&T-Credit Corporation	1987	1986	1985
Revenue, principally finance income	\$ 175	\$ 125	\$ 83
Interest and other expenses	147	96	54
Net income	19	14	14
At December 31	1987	1986	
Net investment in finance assets . .	\$1,462	\$1,013	
Other assets	181	81	
Total assets	\$1,643	\$1,094	
Debt maturing within one year . . .	\$ 332	\$ 267	
Other liabilities	332	219	
Long-term debt*	799	482	
Shareowner's equity	180	126	
Total liabilities and shareowner's equity	\$1,643	\$1,094	

*Includes \$125 due AT&T.

Other Significant Investments

As of December 31, 1987, additional significant investments at equity included:

Ing. C. Olivetti & C., S.p.A. (Olivetti)—22% of voting shares owned. The market value of AT&T's investment in Olivetti, as measured by the closing price on the Milan, Italy stock exchange at December 31, 1987 and 1986 was \$644 and \$1,016, respectively.

Joint Venture with N. V. Philips—50% of voting shares owned which increased to 60% in January, 1988.

Joint Venture with Lucky Gold Star Group—44% of voting shares owned.

AT&T's investments at equity (excluding AT&T-Credit) were \$702 and \$678 at December 31, 1987 and 1986, respectively. AT&T's cumulative equity investment in undistributed earnings of investees (excluding AT&T-Credit) was \$73 at December 31, 1987. Dividends received from equity investment entities (excluding AT&T-Credit) were \$26 in 1987 and \$24 in 1986.

(H) Debt Obligations

Long-term obligations outstanding consisted of the following:

Interest Rates	Maturities	At December 31, 1987	1986
Debentures:			
27/8% to 43/4%	1987-1999	\$1,550	\$1,850
51/8% to 71/8%	1995-2003	1,850	1,850
71/2% to 9%	1987-2026	2,523	2,552
Notes:			
51/2% to 73/4%	1987-2003	595	607
9% to 127/8%	1987-1997	507	510
		7,025	7,369
Long-term lease obligations		397	440
Other		33	16
Less: Unamortized discount—net		35	36
		7,420	7,789
Less: Current portion			
Long-term debt		57	325
Long-term lease obligations . . .		120	155
Total long-term obligations		\$7,243	\$7,309

Long-term debt maturities for the five years subsequent to December 31, 1987 are \$57 in 1988, \$57 in 1989, \$388 in 1990, \$142 in 1991, \$317 in 1992, and \$6,064 in years thereafter.

None of the long-term debt is collateralized by mortgage or pledge of AT&T's assets, nor can it be converted to common or preferred shares. The trust indentures covering the long-term debt do not place any restrictions on payment of dividends.

The remaining portion of debt maturing within one year consisted principally of commercial paper, which amounted to \$414 and \$251 at December 31, 1987 and 1986, respectively.

(I) Common Shareowners' Equity

	Common Stock	Additional Paid-in Capital	Retained Earnings
Balance at December 31, 1984	\$1,038	\$7,843	\$4,882
Net income 1985	—	—	1,557
Dividends declared			
On \$77.50 Preferred	—	—	(40)
On \$ 3.64 Preferred	—	—	(34)
On \$ 3.74 Preferred	—	—	(36)
On Common shares \$1.20 per share	—	—	(1,273)
Shares issued under shareowner plans	12	234	—
Shares issued under employee plans	19	406	—
Other changes	—	—	25
Balance at December 31, 1985	\$1,069	\$8,483	\$5,081
Net income 1986	—	—	139
Dividends declared			
On \$77.50 Preferred	—	—	(20)
On \$ 3.64 Preferred	—	—	(32)
On \$ 3.74 Preferred	—	—	(34)
On Common shares \$1.20 per share	—	—	(1,285)
Shares issued under employee plans	3	61	—
Redemption of preferred shares . .	—	—	(22)
Other changes*	—	—	107
Balance at December 31, 1986	\$1,072	\$8,544	\$3,934
Net income 1987	—	—	2,044
Dividends declared			
On \$ 3.64 Preferred	—	—	(9)
On \$ 3.74 Preferred	—	—	(9)
On Common shares \$1.20 per share	—	—	(1,287)
Shares issued under employee plans	2	61	—
Redemption of preferred shares . .	—	—	(34)
Other changes*	—	—	137
Balance at December 31, 1987	\$1,074	\$8,605	\$4,776

* Principally foreign currency translation adjustments.

(J) Redeemable Preferred Shares

The Company has 100,000,000 authorized shares of preferred stock at \$1 par value. The outstanding issues are as follows:

Shares Outstanding At December 31	\$77.50 Issue, Stated Value \$1,000	\$3.64 Issue, Stated Value \$50	\$3.74 Issue, Stated Value \$50
1985	512,500	9,100,000	9,400,000
1986	25,000	8,500,000	8,800,000
1987	—	600,000	600,000

During 1987 shares of each of the above issues were redeemed under both mandatory and optional redemption provisions, and such redemptions amounted to \$830.

On February 1, 1988, the remaining 600,000 shares of the \$3.74 issue were redeemed at stated value.

\$3.64 preferred shares may be redeemed at a premium of \$2.18 per share on or before April 30, 1988 and at a diminishing premium thereafter. The \$3.64 issue contains a sinking fund requirement for the redemption each year of 300,000 shares without a premium; an additional 300,000 shares may be redeemed at the Company's option. The total sinking fund requirement for the \$3.64 series is \$15 for each of the years 1988 and 1989, at which time all shares will have been redeemed.

(K) Other Information

—Interest expense is net of capitalized amounts of \$73, \$109, and \$97 for 1987, 1986, and 1985, respectively.

—Receivables at December 31, 1987 and 1986 have been reduced by allowances for doubtful accounts of \$484 and \$317, respectively.

—Additions to property, plant and equipment—net were increased by \$520 in 1985 due to the reclassification of reserves previously accrued for restructuring the corporation and adjusting the carrying value of assets.

(L) Employee Benefit Plans

Pension Plans

The Company sponsors non-contributory defined benefit plans covering substantially all management and non-management employees. Benefits for management employees are based on a career average pay plan while the benefits for non-management employees are based on a non-pay-related plan.

The Company's pension contributions are made to trust funds, which are held for the sole benefit of pension plan participants. Contributions are determined in accordance with the aggregate cost method, an acceptable funding method under the Employee Retirement Income Security Act of 1974, and with appropriate Internal Revenue Service regulations. For purposes of determining contributions, rates of investment return are assumed and the weighted average of such rates was 7.6%, 7.8%, and 6.7% for 1987, 1986, and 1985, respectively.

Effective January 1, 1986, AT&T adopted the Statement of Financial Accounting Standards No. 87 (FAS 87), "Employers' Accounting for Pensions." Adoption of FAS 87 required AT&T to change from the aggregate cost method to the projected unit credit method for determining pension cost for financial reporting purposes. Additionally, FAS 87 required that the effects of retroactively applying the new method be amortized over the average remaining service period of active employees, which is estimated to be 15.9 years. Pension cost computed in accordance with FAS 87 was negative and amounted to \$316 and \$258 for 1987 and 1986, respectively, resulting in a pension credit (i.e., pension income). Pension cost for 1985 using the aggregate cost method was \$657. If FAS 87 had not been adopted in 1986, pension cost computed using the aggregate cost method would have been \$88 and \$327 in 1987 and 1986, respectively.

Pension cost includes the following components:

	1987	1986
Service cost-benefits earned during the period	\$ 446	\$ 419
Interest cost on projected benefit obligation	1,351	1,296
Amortization of unrecognized prior service costs*	22	13
Less: Return on plan assets		
Actual	\$1,412	\$3,917
Deferred portion	239	(2,415)
Expected return	1,651	1,502
Amortization of transition asset	484	484
Pension credit	\$ 316	\$ 258

*These costs pertain to plan amendments in 1987 and prior years and are amortized on a straight line basis over the average remaining service period of active employees.

The funded status of the plan was as follows:

At December 31	1987	1986
Actuarial present value of accumulated benefit obligation, including vested benefits of \$14,623 and \$14,222, respectively	\$16,484	\$16,169
Plan assets at market value	\$26,590	\$26,379
Less: Actuarial present value of projected benefit obligation	17,696	17,481
Excess of assets over projected benefit obligation	8,894	8,898
Unrecognized prior service costs	467	333
Less: Unrecognized transition asset	6,728	7,211
Unrecognized net gain	1,607	1,359
Prepaid pension cost	\$ 1,026	\$ 661

The projected benefit obligation was determined using discount rates of 8.25% and 8.0% at December 31, 1987 and 1986, respectively, and an assumed long-term rate of compensation increase of 5.0%. The expected long-term rate of return on plan assets used in determining pension cost was 8.0% for 1987 and 1986. Plan assets consist primarily of listed stocks, corporate and governmental debt, and real estate investment.

Savings Plans

The Company sponsors savings plans for substantially all employees. The plans allow employees to contribute a portion of their pretax or after tax income, in accordance with specified guidelines. AT&T matches a percentage of these contributions up to certain limitations. During 1987, 1986, and 1985, such costs amounted to \$263, \$231, and \$228, respectively.

(M) Postretirement Benefits

The Company's benefit plan for retirees includes health care benefits and life insurance coverage.

The health care benefits are provided through insurance company contracts. The annual cost of such benefits is the claims paid for retirees. This cost was \$234 and \$192 for approximately 91,400 and 87,000 retired employees in 1987 and 1986, respectively. This cost for 1985, which is not separable between active and retired employees, was \$868 and included approximately 338,000 active and 76,000 retired employees. In addition, under the terms of the Divestiture Plan of Reorganization, AT&T pays a portion of the health care benefit costs of the divested Bell System operating telephone companies' predivestiture retirees. These costs are expensed as incurred and were \$85, \$84, and \$59 for 1987, 1986, and 1985, respectively.

The cost of providing postretirement life insurance benefits to employees who meet certain age and service requirements is determined and funded under the aggregate cost method. This cost was \$23 for 1987, and \$27 for each of the years, 1986 and 1985.

(N) Stock Options

The AT&T 1987 Long-Term Incentive Program (Plan), which became effective on July 15, 1987, provides for the granting of stock options, stock appreciation rights (SARs) in tandem with stock options or free-standing, and other awards. Under the Plan, 0.6% of the outstanding shares of the Company's common stock as of the first day of each calendar year is available for grant in such year. All shares available in any year that are not granted under the Plan are available for grant in subsequent years. The exercise price of any stock option or award shall not be less than 100% of the fair market value of the stock on the date of a grant of such option. Under the Plan, exercise of either a related option or a related SAR cancels the other to the extent of such exercise.

Prior to July 15, 1987, stock options were granted under the AT&T 1984 Stock Option Plan. No new options can be granted under the 1984 plan. Under this plan, a maximum of 20,000,000 shares of the Company's common stock were available for grant at fair market value on the date of grant.

Option transactions during 1987, 1986, and 1985 are shown below:

Number of Shares	1987	1986	1985
Balance at January 1	4,910,201	3,295,536	1,508,372
Options granted	2,125,105	1,947,400	2,036,350
Options and SARs exercised	(352,171)	(182,090)	(80,670)
Average price	\$19.47	\$18.28	\$17.90
Options forfeited	(232,903)	(150,645)	(168,516)
At December 31:			
Options outstanding	6,450,232	4,910,201	3,295,536
Average price	\$22.35	\$20.95	\$18.80
Options exercisable	4,529,087	3,088,076	1,415,122
Shares available for grant	6,328,878	14,827,039	16,623,794

During 1987, SARs were granted for 262,000 shares for an average exercise price of \$25.28, and 16,890 SARs were exercised. As of December 31, 1987, 797,940 SARs remained unexercised, of which 546,237 SARs were exercisable as of December 31, 1987.

(O) Contingencies

AT&T is a defendant in a number of lawsuits and party to a number of other proceedings that have arisen in the normal course of its business, including certain regulatory proceedings in which revenues are being collected by AT&T subject to possible refund. In the opinion of the Company's legal counsel, any monetary liability or financial impact of such lawsuits and proceedings to which AT&T might be subject after final adjudication would not be material to the consolidated financial position of the Company.

(P) AT&T Technologies, Inc.

AT&T Technologies, Inc. is a wholly-owned subsidiary of the Company and is included in the AT&T consolidated financial statements. The following table provides summarized consolidated financial information for AT&T Technologies, Inc., which includes sales of \$3,860, \$3,718, \$4,369 for 1987, 1986, and 1985, respectively, to AT&T and its affiliates; such sales are eliminated in the AT&T consolidated financial statements. During 1987, the Company reallocated business restructuring reserves of \$273 to AT&T Technologies from other AT&T business units. This transfer had no impact on AT&T's consolidated net income.

AT&T Technologies, Inc.	1987*	1986*	1985
Sales	\$11,044	\$10,830	\$12,180
Gross profit on sales	3,878	3,361	3,969
Cumulative prior years' effect (to December 31, 1985) of a change in depreciation method (B)	—	90	—
Net income (loss)	290	(357)	553
At December 31	1987	1986	
Current assets	\$ 4,770	\$ 4,687	
Net property, plant and equipment, long-term investments, and other noncurrent assets . . .	3,074	2,962	
Total assets	\$ 7,844	\$ 7,649	
Current liabilities	\$ 2,299	\$ 2,674	
Long-term debt and other noncurrent liabilities	1,756	1,487	
Equity capital	3,789	3,488	
Total liabilities and equity capital	\$ 7,844	\$ 7,649	

*Includes \$273 and \$866 for provision for business restructuring in 1987 and 1986, respectively. See Note (B).

(Q) Quarterly Information (unaudited)

Quarters	First	Second	Third	Fourth	Total
1987					
Operating revenues	\$ 8,121	\$ 8,401	\$ 8,474	\$ 8,602	\$33,598
Operating costs and expenses	7,339	7,278	7,611	7,894	30,122
Net income	445	596	505	498	2,044
Earnings per common share . . . . .	.40	.55	.47	.46	1.88
1986					
Operating revenues	\$ 8,710	\$ 8,421	\$ 8,427	\$ 8,529	\$34,087
Operating costs and expenses	7,674	7,628	7,602	10,851	33,755
Income (loss) before cumulative effect of a change in depreciation method	529	422	533	(1,170)	314
Cumulative prior years' effect (to December 31, 1985) of a change in depreciation method	(175)	—	—	—	(175)
Net income (loss)	354	422	533	(1,170)	139
Per common share:					
Earnings (loss) before cumulative effect of a change in depreciation method . . . . .	.47	.37	.48	(1.11)	.21
Earnings (loss) . . . . .	.31	.37	.48	(1.11)	.05

1986

Fourth Quarter: Includes decrease in net income of \$1,504 due to charges for business restructuring activities and other actions. See Note (B).

Third Quarter: Includes increase in net income of \$39 for an award for damages paid by the Republic of Iran and \$29 attrib-

utable to the change in AT&T's ownership interest in Olivetti. See Note (C). Also includes a reduction in net income of \$25 due to charges for business restructuring activities. See Note (B).

First Quarter: Includes a decrease in net income of \$175 due to the cumulative effect of a change in depreciation method. See Note (B).

Four Year Summary of Selected Financial Data (unaudited)

On January 1, 1984, AT&T was required by Court order to divest those parts of the Bell System operating telephone companies that provided local exchange and exchange access services and printed directory advertising. As a consequence of the divestiture, the financial results of the pre-divestiture years are not comparable to those of 1987, 1986, 1985 and 1984 and are not included below.

Dollars in millions (except per share amounts)	1987	1986*	1985	1984
Results of Operations:				
Total operating revenues	\$33,598	\$34,087	\$34,417	\$33,187
Total operating costs and expenses	30,122	33,755	31,431	30,893
Net income	2,044	139	1,557	1,370
Dividends on preferred shares	23	86	110	112
Income applicable to common shares	2,021	53	1,447	1,258
Earnings per common share	1.88	.05	1.37	1.25
Dividends declared per common share	1.20	1.20	1.20	1.20
Assets and Capital:				
Property, plant and equipment—net	\$20,681	\$21,078	\$22,261	\$21,343
Total assets	38,426	38,883	40,397	39,773
Long-term debt including capital leases	7,243	7,309	7,684	8,718
Preferred shares subject to mandatory redemption	82	912	1,457	1,494
Common shareowners' equity	14,455	13,550	14,633	13,763
Capital investments	3,588	3,598	4,580	3,538
Other Information:				
Operating income as a percent of operating revenues	10.3%	1.0%	8.7%	6.9%
Net income as a percent of operating revenues	6.1%	0.4%	4.5%	4.1%
Return on average common equity	14.4%	0.3%	10.1%	9.5%
Market price per common share at year-end	\$27.00	\$25.00	\$25.00	\$19.50
Book value per common share at year-end	\$13.46	\$12.64	\$13.68	\$13.26
Debt ratio at year-end	35.2%	35.8%	36.2%	38.5%
Employees at year-end	303,000	316,900	337,600	365,200

*1986 data were significantly affected by major charges for business restructuring, an accounting change and other charges. See Note (B) to the financial statements.

Market and Dividend Data (unaudited)

AT&T common stock is traded on the New York, Philadelphia, Boston, Midwest, and Pacific stock exchanges. It also trades on the London, Tokyo, and other foreign stock exchanges. The prices shown in the accompanying table were obtained from the Composite Tape encompassing the trading on all the above U.S. exchanges and trades reported by the National Association of Securities Dealers and Instinet. Common shareowners of record totaled 2,701,876 as of December 31, 1987. AT&T also has preferred shares outstanding that rank prior to common shares as to dividend. The payment of common dividends will depend upon the Company's earnings and financial requirements and other factors. Details of the preferred shares and common shareowners' equity are in Notes (J) and (I), respectively, to the financial statements.

Calendar Quarter	Market Price		Dividends Declared	
	High	Low		
<hr/>				
1987	1st	\$27³/₈	\$22¹/₄	\$.30
	2nd	29¹/₄	23¹/₄	.30
	3rd	35⁷/₈	27¹/₈	.30
	4th	34³/₄	20	.30
<hr/>				
1986	1st	\$25³/₈	\$20⁷/₈	\$.30
	2nd	26	21⁵/₈	.30
	3rd	25¹/₂	22³/₈	.30
	4rd	27⁷/₈	22¹/₈	.30

American Telephone and Telegraph Company

1988 Annual Meeting

The 103rd Annual Meeting of AT&T shareowners will be held at 9:30 a.m. on Wednesday, April 20, 1988, at the Currihan Exhibition Hall in Denver, Colorado.

Stock and Bond Information

Information about AT&T common and preferred stock, bonds, dividends or interest payments and about the Dividend Reinvestment and Stock Purchase Plan can be obtained from the company's transfer agent, American Transtech Inc., by calling: 1 800-348-8288. Mailed inquiries should be addressed to AT&T, c/o American Transtech, P.O. Box 45048, Jacksonville, FL 32232-5048.

Certificates and documents in support of stock transfers should also be sent to the above address.

American Transtech maintains an office for bank and broker services at 22 Cortlandt Street, 10th Floor, New York, NY, 10007-3170.

Shareowner Information

Available without charge by writing to:

Secretary's Department, AT&T Shareowner Relations, Room 3200P2, 550 Madison Avenue, New York, NY 10022-3297

- Form 10-K, AT&T's annual report to the Securities and Exchange Commission
- For visually impaired shareowners, the AT&T annual report on audio cassette

AT&T Foundation, Room 2700, 550 Madison Avenue, New York, NY 10022-3297

- A report on AT&T philanthropy in 1986 and 1987

Treasury Department, AT&T Credit Corporation, Room 3157, 44 Whippany Road, Morristown, NJ 07960-4523

- AT&T Credit Corporation's annual report

General questions or comments about the Company should be directed to:

Corporate Vice President, Law and Secretary, AT&T, Room 3309, 550 Madison Avenue, New York, NY 10022-3297

The telephone number of AT&T headquarters in New York City is 212-605-5500

Office of the Chairman

James E. Olson
Chairman of the Board and
Chief Executive Officer

Robert E. Allen
President and Chief
Operating Officer

Charles Marshall
Vice Chairman of the Board

Morris Tanenbaum
Vice Chairman of the Board

Randall L. Tobias
Vice Chairman of the Board
Chairman & Chief Executive
Officer of AT&T Communications
and Information Systems

Senior Executives and Heads of Major Units

John E. Berndt
Senior Vice President
International Services Division

James R. Billingsley
Senior Vice President
Federal Regulation

W. Frank Blount
President
Network Operations Group

Michael A. Brunner
Executive Vice President
Federal Systems

S.J. Buchsbaum
Executive Vice President
Customer Systems
AT&T Bell Laboratories

Harold W. Burlingame
Senior Vice President
Human Resources

Vittorio Cassoni
President
Data Systems Group

John A. Hinds
President
AT&T International

Robert M. Kavner
Senior Vice President
and Chief Financial Officer

Marilyn Laurie
Senior Vice President
Public Relations and
Employee Information

Gerald M. Lowrie
Senior Vice President
Public Affairs

William B. Marx, Jr.
Executive Vice President
Network Systems Marketing
and Customer Operations

J. S. Mayo
Executive Vice President
Network Systems—
AT&T Bell Laboratories

John T. O'Neill
Executive Vice President
Network Systems Products

Alfred C. Partoll
Senior Vice President
External Affairs

Victor A. Pelson
President
General Markets Group

Ian M. Ross
President
AT&T Bell Laboratories

John L. Segall
Senior Vice President
Corporate Strategy and
Development

John R. Smart
Senior Vice President
Business Sales Division

Alexander C. Stark, Jr.
Senior Vice President
Communications Systems
Division

Thomas R. Thomsen
President
AT&T Technology Systems Group

William J. Warwick
President
AT&T Microelectronics

E. Wayne Weeks
President
AT&T Network Systems Group

Sam R. Willcoxon
President
Business Markets Group

John D. Zeglis
Senior Vice President
and General Counsel

C. Perry Colwell
Corporate Vice President
and Controller

S. Lawrence Prendergast
Corporate Vice President
and Treasurer

Robert E. Scannell
Corporate Vice President
Law and Secretary



COLOR CODE

FIELD CRITICAL

● YELLOW ALERT

GREEN: CONTROL.

BLUE ALERT/CONTROL

MAGENTA: DATA STYLES

SYMBOLS

◆ DYNAMIC ROUTING CENTER

 INTERNATIONAL CENTER **FIXED MOUNTING CENTER**

2 SIGNAL TRANSFER POINT

4. NETWORK CONTROL POINT

